

ADIABATIC LOGIC STRENGTHENS BOARD WITH APPOINTMENT OF FORMER CYPRESS SEMICONDUCTOR MD, DAVID REES

Submitted by: Martin Brooke Associates

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* David Rees is a former managing director of Cypress Semiconductor's international design centres in the UK, India, Ireland and Belgium

* Boasts 25 years in senior positions in the semiconductor industry; great track record of building design teams; excellent contacts across industry, academia, govt. and VCs

* Appointment is the first of several as Adiabatic Logic looks to finalise first round funding and to accelerate the development of its patented power saving technology

CAMBRIDGE, England, October 14, 2004 - Adiabatic Logic Limited (www.adiabaticlogic.com), a Cambridge-based company focused on creating and licensing intellectual property (IP) in the low power technology arena, has strengthened its board with the appointment of industry heavyweight David Rees as a non-executive director. David was formerly managing director of Cypress Semiconductor's international design centres in the UK, India, Ireland and Belgium.

David's appointment significantly strengthens the Adiabatic Logic team as it looks to finalise first round funding and accelerate the development of its patented Intelligent Output Driver (IOD), which delivers up to 75% dynamic power savings in chip I/O for portable devices such as laptops, smartphones, handheld computers, digital cameras and MP3 players. The company is looking to raise £1.2m to supplement the £0.5m grant recently secured from the UK Department of Trade and Industry (DTI).

David Rees brings to Adiabatic Logic over 25 years of experience in senior positions in the semiconductor industry and offers a wealth of expertise covering fund raising, acquisitions, business planning, due diligence, technical knowledge - as well as excellent contacts across industry, academia, government and the venture capital community. He also has a great track record of building design teams having spent the last ten years (1993 to 2003) with the San Jose, California-based corporation Cypress Semiconductor, where he grew the international R&D team from virtually nothing to a team of 170 people across the UK, India, Ireland and Belgium.

Simon Payne, CEO of Adiabatic Logic, said: "David Rees is a rare commodity in today's electronics market as he understands our technology at both a micro and macro level, and has the knowledge, experience and contacts to help us to build our team, develop the technology and secure the commercial agreements that will ensure that IOD reaches its full potential."

David Rees said: "IOD is a very clever piece of technology which has huge potential particularly for

portable applications where power conservation is so critical. Any solution that can reduce the power budget of a handheld computer or mobile phone by up to 20 per cent deserves serious consideration. I am looking forward to working with the team at Adiabatic Logic to realise their vision of an IOD enabled world in which all digital ICs (integrated circuits) - there are billions produced each year - are using this unique power recycling technology.”

Adiabatic Logic’s IOD IP cell is designed to replace the conventional pad drivers in an integrated circuit (IC) and uses a patented energy recycling technique which exploits the principle of adiabatic - or reversible - computing. IOD recycles energy normally wasted each time a digital I/O pad driver makes a switching transition.

In addition to its power saving potential, Adiabatic Logic’s IOD solution offers a multitude of other potential benefits to IC and system developers. For example, it can reduce the overall component count and bill of material (BOM) cost by minimising battery size, cutting DC-DC converter/thermal management costs and eliminating the requirement for terminating resistors.

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How IOD works?

Adiabatic Logic’s IOD uses the speed of submicron CMOS (complementary metal oxide semiconductor) to actively mimic the voltage-current drive characteristics of a classic driver with a source (or series) terminator resistor. It does this in such a way that the bulk of the current is delivered to the load capacitance non-resistively from a reservoir capacitance maintained at a mid rail voltage, assisted by the inherent inductance of the load. The on-chip reservoir capacitance delivers charge on rising edges and recovers charge on falling edges thereby recycling energy, which is conventionally wasted.

About Adiabatic Logic Limited (www.adiabaticlogic.com)

Founded in 2002, Adiabatic Logic Limited is part of the Cambridge Technology Group and was set up to exploit a portfolio of secured patents in the low power technology arena. Adiabatic Logic has a patented technique with the potential to significantly reduce the power consumption of digital computer chips, such as those found in today’s laptop computers, personal digital assistants (PDAs) and mobile phones. The design team’s focus is on creating and applying intellectual property (IP) to exploit the concept of ‘loss-less’ processes. An adiabatic process is one in which no heat is gained or lost. It is a concept normally associated with the behaviour of gases but can be applied in other physical domains, such as electronics. The company is based at Dry Drayton, on the outskirts of Cambridge, England.

The first silicon implementation of IOD was completed in October 2003 using a 0.6-micron process technology. The results showed power savings of more than 50 per cent compared with traditional I/O schemes. Earlier this year, Adiabatic Logic signed a co-operation agreement with IMEC, Europe's largest independent microelectronics and nanotechnology research center, which will result in IOD being incorporated into IMEC's library of radiation hardened 180nm technology, for use in space, medical and scientific applications. In September 2004, Adiabatic Logic received an Exceptional Research and Development Grant of £500,000 UK Department of Trade and Industry (DTI). It is now looking to raise an additional £1.2 million, which will enable Adiabatic Logic to produce 130nm technology-specific, production-worthy IP cells and a design kit compatible with leading electronic design automation (EDA) tools.

About the Cambridge Technology Group (www.cambridgetechgroup.com)

Cambridge Technology Group is a holding company with three wholly owned subsidiaries - Adiabatic Logic Limited, Cambridge Technology Consultants Limited and XJTAG Limited. Cambridge Technology Consultants (www.camtechconsultants.com) offers its clients a broad range of services from high-end applications to innovative product development and technical consultancy skills. For ten years, its multi disciplinary team of hardware and software engineers have provided cost-effective solutions from concept through to pre-production. XJTAG Limited (www.xjtag.com) is a specialist design and test tool developer. Its JTAG (Joint Test Action Group) development system offers a competitive solution for designers and developers of electronic circuits.

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